Attorney's Docket No. 004968-005

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of	)
David R. FERGUSON et al.	) Group Art Unit: 2172
Application No.: 08/947,435	) Examiner: E. Colbert
Filed: October 8, 1997	) Appeal No. Unassigned
For: COMPUTER-BASED DOCUMENT MANAGEMENT SYSTEM	)

BRIEF FOR APPELLANT

Assistant Commissioner for Patents
Washington, D.C. 20231

Sir:

This appeal is from the decision of the Examiner dated November 21, 2000 (Paper No. 17), finally rejecting claims 1-28 , 30-46 and 51, and objecting to claims 47-50 and 53-83, which are reproduced as an Appendix to this brief.

A check covering the [ ] $155.00 (220) [x] $310.00 (120) Government fee and two extra copies of this brief are being filed herewith.

The Commissioner is hereby authorized to charge any appropriate fees under 37 C.F.R. §§1.16, 1.17, and 1.21 that may be required by this paper, and to credit any overpayment, to Deposit Account No. 02-4800. This paper is submitted in triplicate.

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I.   Real Party in Interest

The named inventors of the subject application are David R. FERGUSON, An N. HONG, Sami SULEMAN, and Gregory L. WHITTEMORE. The inventors have assigned their rights to the invention disclosed in the application and any patent that may issue therefrom to ScanSoft Inc.

II.   Related Appeals and Interferences

No known appeals or interferences are believed to directly affect, or be affected by, or have any bearing on the Board's decision in this appeal.

III.   Status of Claims

Claims 1-28, 30-51 and 53-83 are pending in the application. Claims 29 and 52 have been canceled. In the second final Office Action dated November 21, 2000, claims 1-28, 30-46 and 51 were finally rejected, while claims 47-50 and 53-83 were objected to for being dependent upon a rejected base claim.

IV.   Status of Amendments

There were no amendments or responses filed subsequent to the final rejection dated November 21, 2001. However, Applicants would like to briefly review the prosecution history of the present application. The present application was filed on October 8, 1997. A first Office Action rejecting claims 1-83 was issued on March 5, 1999. In response, Appellants' filed an amendment on August 5, 1999 wherein claims 29 and 52 were canceled and claims 1, 26, 30-39 51 and 53-63 were amended. A final Office Action was issued on September 16, 1999, rejecting claims 1-28, 30-46 and 51 under new grounds and objecting to claims 47-50 and 53-83. In response, Appellants' filed a request for reconsideration on December 16, 1999. An Advisory Action, dated December 30, 1999, was issued stating that the Appellants' amendments relating to independent claims 1 and 51 raised new issues that would require further consideration and/or search. The Advisory

Action further stated that the claim amendments will not be entered. (Appellants respectfully note that subsequent to the final Office Action, no claim amendments were proposed.) In response to the Advisory Action, Appellants' filed a Notice of Appeal on January 18, 2000, and subsequently filed an Appeal Brief on March 20, 2000. In response to Appellants' Appeal Brief, a non-final Office Action was issued on June 7, 2000, withdrawing the finality of the Office Action issued on September 16, 1999, entering Applicants' Request for Reconsideration filed on December 16, 1999, and repeating the rejection of claims 1-28, 30-46 and 51 recited in the previous two actions with the addition a newly cited rejection of claims 1, 32, 33, 39, 51 and 53-58 under 35 U.S.C. §112 second paragraph. In response, Appellants' representatives conducted an Interview with Examiner Colbert and Primary Examiner Alam on August 30, 2000. Subsequent to the interview, a Request for Reconsideration was filed on September 7, 2000. Thereafter, a second final Office Action repeating the rejections of the previous final Office Action was issued on November 21, 2000.

V. Summary of the Invention

The present invention relates to computer-based document management systems (page 3, lines 22-23). More specifically, the present invention involves a categorization utility that provides different levels of automated assistance in organizing a collection of electronic documents (page 13, lines 14-16). A category, for purposes of the present invention, is a logical grouping of electronic documents that share some common attribute or attributes, which are referred to as category criteria (page 13, lines 17-19). For example, the category criteria for a grouping of documents might involve a common author, a predefined number of words, a key word(s), or a common concept (page 3, lines 20-24).

The categorization utility implements a category by associating a corresponding set of category criteria with a folder in the document collection hierarchy (page 3, lines 31-33). Folders that are associated with a category are referred to as "smart" folders. They are referred to as smart folders because the categorization utility continuously monitors the

attributes associated with the various electronic documents which make up the document collection, where the attributes for each electronic document have been extracted and stored in corresponding data structures called STG files. If the categorization utility establishes that one or more attributes associated with a given document match the category criteria associated with a particular smart folder, the categorization utility generates a link between the smart folder and the document. Thus, the categorization utility creates the appearance that smart folders automatically collect matching documents without user interaction, hence, the folders are referred to as being "smart" (page 14, lines 3-13).

Generating a link between a document and a smart folder may occur after an STG file is created for a new document, or it may occur after an existing STG file has been updated due to the modification of its corresponding document, wherein the modification caused the document to meet the category criteria of the smart folder (page 14, lines 29-34). Similarly, if a document is modified such that the modification causes the document to no longer meet the category criteria of a particular smart folder, the link between that document's STG file and the smart folder may be eliminated (page 14, line 34 - page 15, line 2).

The categorization utility categorizes documents under various smart folders using one of three possible categorization methods: automatic categorization; semi-automatic categorization; or manual categorization ((page 15, lines 3-8). Automatic categorization involves categorizing a document into one or more categories without any user interaction. Here, each category is represented by a smart folder that initially contains a "seed" document. The "seed" document is then analyzed by the categorization utility, and the category criteria (i.e., the key words and/or attributes) are automatically extracted. Existing documents and new documents that match the automatically extracted category criteria are linked with the smart folder through their corresponding STG files (page 16, lines 1-10).

A user can also modify the category criteria associated with a smart folder. This is accomplished through a "modify category criteria" user interface. Changing category criteria may result in the categorization utility purging documents from the corresponding

category if the documents no longer match the category criteria. In addition, the categorization utility initiates a search using the modified category criteria, to identify additional documents in the document collection that are now relevant given the new category criteria (page 16, lines 23-32).

Smart folders can also be reactive. Accordingly, a user can program a smart folder with particular behavioral characteristics, such that a particular task or tasks are automatically performed on or with the documents linked with that smart folder. For example, the user may program a smart folder to automatically e-mail all documents stored therein to a particular e-mail address. In another example, the user may program a smart folder to periodically display folder updates, such as the addition or deletion of new documents (page 17, lines 10-20).

Finally, there are two filter types associated with each smart folder. The first filter type generates an inclusion list. The inclusion list identifies those documents that were not automatically included in the category associated with the smart folder during the categorization process. The inclusion list may provide the user with an indication that the category criteria associated with that category are too restrictive. The second filter type generates an exclusion list. The exclusion list identifies those documents that were not automatically excluded from the category associated with the smart folder during the categorization process. The exclusion list may provide the user with an indication that the category criteria associated with that category are not restrictive enough (i.e., the category criteria is too aggressive). Both lists may be manually manipulated by the user. Accordingly, the user can modify the two lists as needed (page 17, line 22 - page 18, line 3).

VI.   The Issues

There are ten issues presented for appeal. The issues are as follows.

A.   Whether claims 1 and 2 are properly rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 5,625,818 ("Zarmer").

B.   Whether claim 51 is properly rejected under 35 U.S.C. §103(a) as being

unpatentable over Zarmer.

C.   Whether claims 3-10 are properly rejected under 35 U.S.C. §103(a) as being unpatentable over Zarmer in view of U.S. Patent No. 5,628,003 ("Fujisawa").

D.   Whether claims 11-16 are properly rejected under 35 U.S.C. §103(a) as being unpatentable over Zarmer, Fujisawa and further in view of U.S. Patent No. 5,727,175 ("Malone").

E.   Whether claims 17-24 are properly rejected under 35 U.S.C. §103(a) as being unpatentable over Zarmer, Fujisawa and further in view of Malone.

F.   Whether claims 25-28 are properly rejected under 35 U.S.C. §103(a) as being unpatentable over Zarmer, Fujisawa and further in view of Malone.

G.   Whether claims 30-31 are properly rejected under 35 U.S.C. §103(a) as being unpatentable over Zarmer, Fujisawa and further in view of Malone.

H.   Whether claims 32-33 are properly rejected under 35 U.S.C. §103(a) as being unpatentable over Zarmer, Fujisawa and further in view of Malone.

I.   Whether claims 34-38 are properly rejected under 35 U.S.C. §103(a) as being unpatentable over Zarmer, Fujisawa and further in view of Malone.

J.   Whether claims 39-46 are properly rejected under 35 U.S.C. §103(a) as being unpatentable over Zarmer, Fujisawa and further in view of Malone.

VII.   Grouping of Claims

For purposes of appeal, Appellants' claims do not stand or fall together. Where appropriate, the claims are argued separately herein below.

VIII. Argument

Upon proper allocation of the law and an understanding of the technical principles involved in the present invention, Appellants submit that it will be readily apparent that a reversal of the prior art rejections is proper.

A.   Claims 1 and 2 Are Improperly Rejected Under 35 U.S.C. §103(a) For Allegedly Being Unpatentable Over Zarmer.

MPEP §2143 sets forth the basic requirements for establishing a *prima facie* case of obviousness, as indicated herein below:

> "To establish a *prima facie* case of obviousness three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally known in the art to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all of the claimed limitations."

In the present case, the Appellants contend that a *prima facie* case of obviousness is not established because the prior art reference (i.e., Zarmer) fails to teach or suggest all of the features recited in claims 1 and 2, and because the Office Action fails to present a valid reason why one of ordinary skill in the art would be motivated to modify the teachings of Zarmer, in the manner suggested by the Office Action. Further, the Office Action fails to interpret the claims as a whole as is clearly set forth in the statute.

1.   Zarmer Fails To Teach Or Suggest All Of The Features Recited In Appellants' Claims 1 And 2.

Independent claim 1 defines a method for managing a document collection in a computer system. The method involves several steps including the step of importing an electronic document (e.g., an electronic letter, memo or e-mail message) into a collection of documents which is organized into a hierarchy of electronic folders. More importantly, however, the method includes the steps of storing the imported document into memory and extracting therefrom attribute data (e.g., title, author, document type, document size, document content). The extracted attribute data is stored in a data structure that is separate from the imported document itself. The imported document is then linked to at least one electronic folder, which is part of the aforementioned hierarchy of electronic folders, if the attributed data extracted from the imported document matches a set of predefined criteria

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corresponding to the at least one electronic folder.

Zarmer discloses an electronic publishing tool for managing information which is to be provided to an online service. The electronic publishing tool of Zarmer allows information (i.e., the content to be published online) to be captured from the provider so that it may be "published" on a variety of platforms with minimal additional effort. To accomplish this, the publishing tool of Zarmer uses an object-oriented representation of the content to be published and provides a system for the storage of content objects, synchronization of changes to the content, and interfaces to other systems (See Zarmer at column 2, lines 13-24). However, Zarmer fails to disclose or suggest all the features of the present invention as defined by independent claim 1.

More specifically, Zarmer fails to teach or suggest any method for managing a document collection in a computer system that involves automatically extracting attribute data from an imported electronic document, generating a separate data structure, in which said extracted attribute data is stored, and linking the imported document to an electronic folder if the attribute data matches a set of predefined criteria associated with the electronic folder.

The Office Action asserts that Zarmer teaches "automatically extracting attribute data from the document" at column 18, lines 24-34. The Appellants respectfully disagree. Zarmer describes a "publishing tool" that is geared toward information providers and online service operators. The publishing tool employs object-oriented techniques and it is designed to allow the information providers to more effectively manage the content of the information they provide to online service operators. Moreover, it permits the online service operators to capture the content in such a way that they can then publish the information on a variety of platforms. Accordingly, it is not surprising that Zarmer discusses and describes how the publishing tool deals with and/or uses different types of documents, including text documents. Column 18, lines 24-34, merely defines a "TEDocument" as a representation of a "text document," where a text document includes a number of attributes, some of which an information provider may set and/or view. The Appellants respectfully contend that all electronic documents, text or otherwise, inherently

possess certain attributes, such as those identified in the cited passage. However, the mere existence of attribute data is not equivalent to the step of extracting attributes from an imported document as recited in claim 1.

The Office Action asserts that the step of "generating a data structure for the document" is taught by Zarmer at column 23, lines 40-51 and at column 24, lines 48-63. The Appellants respectfully disagree. These passages describe special data structures called "Class Folders", where it appears that objects can be added, removed or repositioned within the Class Folder. Moreover, if different types of objects are later developed, Class Folders can be divided into subclasses. However, Appellants respectfully note that the cited passages expressly deal with specialized folders, and not electronic documents.

The Office Action, further asserts that "wherein said data structure contains the attribute data in a second format independent of the said first format" is taught by Zarmer at column 24, lines 6-18 and at column 4, lines 41-49. The Appellants respectfully disagree. Although the cited passages reference electronic folders which contain folder attributes, the Appellants respectfully contend that the passages do not specifically teach or suggest generating a data structure for an imported document, where the data structure contains attribute data associated with that imported document.

Finally, the Office Action asserts that "linking the imported document to a first electronic folder" is taught by Zarmer at column 6, lines 12-15 and lines 35-40. While it appears as though the cited passages describe importing a document and linking that document to an active folder, the Office Action notes that Zarmer does not teach linking the imported document to a first electronic folder if the attribute data contained in the data structure matches a set of pre-defined criteria corresponding to the first electronic folder. Accordingly, independent claim 1 is patentably distinguishable over Zarmer.

Claim 2 depends from claim 1. Accordingly, claim 2 is patentably distinguishable over Zarmer for at least those reasons presented above with respect to claim 1. Moreover, claim 2 further defines the method of claim 1 by including the following additional method steps: "optically scanning a paper-based document" and "converting the optically scanned document into an electronic document." Zarmer fails to teach, suggest or otherwise

mention optical scanners, optically scanning paper-based documents, or converting such documents once they have been scanned. Therefore, Zarmer cannot possibly be interpreted to teach or suggest the additional steps associated with claim 2.

Nevertheless, the Office Action asserts that the features of claim 2 are disclosed by Zarmer. To support this assertion, the Office Action points to column 4, lines 27-37 and 38-55 of Zarmer. This assertion is unfounded for the following reason. The cited passages disclose running an IP version of the publishing tool on a standard computer which is capable of communicating with an IP server. The cited passages also refer to a central CS version of the publishing tool which is capable of running on one computer or multiple computers which are networked to each other. However, nowhere in the cited passages, or elsewhere in Zarmer is there any disclosure or suggestion of optical scanners, optically scanning paper-based documents, or converting such documents once they have been scanned as recited in Appellents' claim 2.

2. The Office Action Fails To Present A Valid Reason Why One Of Ordinary Skill In The Art Would Be Motivated To Modify The Teachings Of Zarmer.

The Office Action fails to provide any reasonable statement that might motivate one of ordinary skill in the art to modify Zarmer, as suggested, thereby rendering claim 1 obvious. As stated above, the Office Action notes that Zarmer does not teach or suggest the second half of the final step in claim 1, which reads, "if the attribute data contained in the data structure matches a set of predefined criteria corresponding to the first electronic folder." However, the Office Action further asserts that it would have been obvious "to have a set of predefined criteria because the information in the data structure is arranged in a certain way in the computer memory with the attributes in the data structure being those of files marked as hidden, read-only, and archive." This assertion is unfounded for the following reason.

Zarmer does not appear to teach, suggest or otherwise mention arranging information and/or attributes in a data structure for the purpose of classifying a file, for example, as a hidden file, a read-only file or an archive file, as suggested in the Office Action. Furthermore, Appellants respectfully contend that the Office Action fails to

provide any evidence that arranging information and/or attributes in a data structure for the purpose of file classification is generally well known in the art. Still further, even if such knowledge is generally available to one of skill in the art, the Appellants content that there is no nexus between such knowledge and the relevant portions of claim 1 which are at issue here, namely, the step of "linking the imported document to a first electronic folder if the attribute data contained in said data structure matches a set of predefined criteria corresponding to the first electronic folder."

3. The Office Action Fails To Interpret The Claims As A Whole.

It is well established that each claim must be interpreted **as a whole**. It is inappropriate to dissect a claim into individual parts, and then examine each part independently. These requirements are clearly set forth in the statute itself, the relevant portion of which is reproduced herein below:

35 U.S.C. §103 Conditions for Patentability: Non-Obvious Subject Matter

> (a) a patent may not be obtained though the invention is not identically disclosed or described as set forth in §102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter **as a whole** (emphasis added) would have been obvious at the time the invention was made . . .."

The MPEP amplifies the requirements set forth in the statute. Section 2141.02, for example, states that the claimed invention **as a whole** must be considered. Furthermore, it is stated that the question under 35 U.S.C. §103 is not whether the differences between the prior art and the claimed invention would be obvious, but whether a claimed invention **as a whole** would have been obvious.

In the present case, the Office Action does not apply the requirements set forth in 35 U.S.C. §103(a) properly, nor does it follow the guidance set forth in the MPEP. For instance, the final step associated with claim 1 is dissected into two independent parts: a first part which consists of "linking the imported document to a first electronic folder", and a second part which consists of "if the attribute data contained in the data structure matches

a set of predefined criteria corresponding to the first electronic folder." The Office Action asserts that Zarmer teaches the first part (i.e., "linking the imported document to a first electronic folder"), but not the second part (i.e., "if the attribute data contained in the data structure matches a set of predefined criteria corresponding to the first electronic folder"). The Office Action then asserts that the second part, independent of the first part, would have been obvious to one of ordinary skill in the art. More specifically, the Office Action states that "it would have been obvious at the time the invention was made to a person of ordinary skill in art of data structures and attribute data to have a set of predefined criteria because the information in the data structure is arranged in a certain way in the computer memory with the attributes in the data structure being those of files marked as hidden, read-only and archive."

In accordance with 35 U.S.C. §103(a), and in accordance with the MPEP, the Appellants respectfully contend that it is immaterial to the patentability of claim 1 whether one of ordinary skill in the art would find the general use of predefined criteria to be obvious, as the Office Action suggests. What is material is whether claim 1 as a whole, including the final step, in its entirety, would have been obvious to one of ordinary skill in the art at the time the invention was made. By dissecting the final step into two independent parts, the Office Action changes the meaning of the final step and of claim 1 as a whole. The prevention of this is the very reason why the statute requires the Office Action to interpret each claim as a whole.

For at least those reasons presented above, claims 1 and 2 have been improperly rejected under 35 U.S.C. §103(a) over Zarmer.

B.   Claim 51 Is Improperly Rejected Under 35 U.S.C. §103(a) For Allegedly Being Unpatentable Over Zarmer.

In the present case, the Appellants contend that a *prima facie* case of obviousness is not established because the prior art reference (i.e., Zarmer) fails to teach or suggest all of the features recited in claim 51, and because the Office Action fails to present a valid reason why one of ordinary skill in the art would be motivated to modify the teachings of

Zarmer, in the manner suggested by the Office Action. Further, the Office Action fails to interpret the claim as a whole as is clearly set forth in the statue.

1. Zarmer Fails To Teach Or Suggest All Of The Features Recited In Appellants' Claim 51.

Independent claim 51 defines a computer-readable storage medium having stored thereon a program which, when executed, performs a number of steps which are substantially similar to those recited in the method of claim 1. For instance, the program performs a step wherein a document is imported into a collection of documents in a computer-based system, and wherein the collection of documents is organized within the computer-based system in accordance with a hierarchy of electronic folders. Additionally, attribute data associated with the imported document is extracted and stored in a data structure corresponding to the imported document. The program also involves predefining category criteria for a first electronic folder, where the first electronic folder is one of the electronic folders which make up the aforementioned hierarchy of electronic folders. The imported document is ultimately linked to the first electronic folder if the extracted attribute data matches the predefined category criteria associated with the first electronic folder.

As discussed above, Zarmer discloses an electronic publishing tool for managing information which is to be provided to an online service. However, Zarmer fails to disclose or suggest all of the features of the present invention as defined by independent claim 51. More specifically, Zarmer fails to disclose or suggest the steps of automatically extracting attribute data from the document; generating a data structure corresponding to the document comprising the extracted attribute data in a standardized format regardless of the document type or document format; predefining category criteria for a first electronic folder; and linking the document to the first electronic folder if the attribute data extracted form the document and stored in the data structure matches the category criteria.

The Office Action notes that Zarmer fails to teach the steps of "generating a data structure corresponding to the document comprising the extracted attribute data in a standardize format regardless of document type or document format, and wherein the data

structure is stored and maintained in memory separate from the document" and "predefining category criteria for a first electronic folder, wherein the first electronic folder is one of the electronic folders which make up the hierarchy of electronic folders." However, the Office Action asserts that Zarmer teaches the step of "automatically extracting attribute data from the document." To support this assertion, the Office Action points to column 18, lines 24-34 of Zarmer. This assertion is unfounded for the following reason.

As stated above, the cited passage (i.e., column 18, lines 24.34) discusses the class TEDocument which is used to represent text documents. However, nowhere in the cited passage or elsewhere in Zarmer is there any disclosure or suggestion of automatically extracting attribute data from a document as recited in Appellants' claim 51.

The Office Action further asserts that Zarmer teaches the step of "linking the document to the first electronic folder." To support this assertion the Office Action points to column 9, lines 27-42, and column 6, lines 35-40 of Zarmer. Again, Appellants note that the Office Action does not assert that these passages teach or suggest the entire claim step of "linking the document to the first electronic folder if the attribute data extracted from the document and stored in the data structure matches the category criteria." Nevertheless, the cited passages appear to describe, respectively, creating and transferring new folders and importing files that have the same name as an existing file. The Appellants find no relevance between the subject matter in these passages and the step of "linking the document to the first electronic folder if the attribute data extracted from the document and stored in the data structure matches a category criteria," as alleged.

2.   The Office Action Fails To Present A Valid Reason Why One Of Ordinary Skill In The Art Would Be Motivated To Modify The Teachings Of Zarmer.

The Office Action fails to establish a *prima facie* case of obviousness because it fails to present a valid reason why one of ordinary skill in the art would have been motivated to modify Zarmer to achieve the present invention as defined by claim 51. The Office Action states that Zarmer does not disclose "comprising the extracted attribute data

in a standardized format regardless of the document type or document format, and wherein the data structure is stored in memory separate from the document" or "predefining category criteria for a first electronic folder, wherein the first electronic folder is one of the electronic folders which make up the hierarchy of electronic folders." However, the Office Action asserts that "it would have been obvious to a person of ordinary skill in the art of extracted attribute data, data structures, and predefining category criteria at the time the invention was made to have a standardized format, a memory separate from the document, and a first electronic folder because the user has the capability to program the folder to a recognizable format according to the category and the placement of the document in the hierarchy." The Appellants respectfully submit that there is no direct or inherent relationship between the concepts of standardized file formats, memory, electronic folders, and filing electronic documents within a document hierarchy, as suggested by the Office Action, and the concepts of "generating a data structure corresponding to the document comprising the extracted attribute data . . .", "predefining category criteria for a first electronic folder . . .", and "linking the document to the first electronic folder if the attribute data extracted from the document . . . matches the category criteria," as specified in claim 51. As there is no relationship between these concepts, there is no valid reason why one of ordinary skill in the art would be motivated to modify Zarmer as suggested by the Office Action.

3. The Office Action Fails To Interpret The Claim As A Whole.

In the Office Action, claim 51 is treated in much the same manner as claim 1. More specifically, the Office Action separates several claim features into portions, which are then examined independently. For instance, with respect to the step of "generating a data structure corresponding to the document comprising the extracted attribute data in a standardized format regardless of document type of document format, and wherein the data structure is stored and maintained in memory separate from the document," the Office Action states that Zarmer only teaches "generating a data structure corresponding to the document." The Office Action then asserts that Zarmer fails to teach "comprising the

extracted attribute data . . .". In another instance, with respect to the step of "linking the document to the first electronic folder if the attribute data extracted from the document and stored in the data structure matches the category criteria," the Office Action states that Zarmer only teaches "linking the document to the first electronic folder." In this instance, the Office Action completely ignores the remaining portion of the claim feature: "if the attributed data extracted from the document and stored in the data structure matches the category criteria." For at least these reasons, the Appellants respectfully contend that the Office Action has improperly applied 35 U.S.C. §103(a) because claim 51 has not been considered as a whole.

For each of the aforementioned reasons, the Appellants respectfully submit that the rejection of claim 51 under 35 U.S.C. §103(a) is improper.

C.   Claims 3-10 Are Improperly Rejected Under 35 U.S.C. §103(a) For Allegedly Being Unpatentable Over Zarmer In View Fujisawa.

Claims 3-10 variously depend from independent claim 1. In general, these claims further define certain features which are recited in claim 1. For example, several of these claims further define the "first format" as being an image format, a text format, or an HTML format. Several other claims further define the "imported document" as being a word processing document or an e-mail message. As claims 3-10 all depend from independent claim 1, these claims are patentably distinguishable over Zarmer for at least the reasons presented above with respect to claim 1.

Fujisawa describes a document storage and retrieval system that is capable of storing and retrieving both document image data and full-text data. Accordingly, Fujisawa does describe files that are formatted in an image format and files that are formatted in a text format. Nevertheless, Fujisawa fails to make up for the aforementioned deficiencies of Zarmer. More specifically, Fujisawa fails to teach or suggest a method for managing a document collection in a computer system that comprises, *inter alia*, automatically extracting attribute data from an imported document, generating a data structure associated with the imported document, wherein the data structure contains the extracted attribute

data, and linking the imported document to an electronic folder if the attribute data matches a set of predefined criteria associated with the electronic folder. Thus, the combined teaching of Zarmer and Fujisawa cannot possible render any of claims 3-10 unpatentable under 35 U.S.C. §103(a), as alleged by the Office Action.

D.   Claims 11-16 Are Improperly Rejected Under 35 U.S.C. §103(a) For Allegedly Being Unpatentable Over Zarmer And Fujisawa And Further In View Of Malone.

Claims 11-16 variously depend from claim 1. Accordingly, claims 11-16 are patentably distinguishable over the combined teaching of Zarmer and Fujisawa for at least the reasons set forth above with respect to claims 3-10. The Appellants respectfully contend, however, that claims 11-16 are also patentable over the combined teaching of Zarmer, Fujisawa and Malone, where Malone describes a graphical interface between a user and a database, and where the user may access and modify the contents of the database in a uniform, intuitive and simple manner. The basis for the Appellants' contention is as follows. Claims 11-16 further define the "second format", which is recited in claim 1, as comprising at least one data field, where the at least one data field contains, for example, a file name, a memory location, a bit map, raw text, or a data attribute. While Malone does touch on the concept of a data field that may contain such information as a file name or a bit map, Malone fails to rectify the deficiencies associated with the combined teaching of Zarmer and Fujisawa. More specifically, Malone, like the combined teaching of Zarmer and Fujisawa, fails to teach or suggest a method for managing a document collection in a computer system that comprises, *inter alia*, automatically extracting attribute data from an imported document, generating a data structure associated with the imported document, wherein the data structure contains the extracted attribute data, and linking the imported document to an electronic folder if the attribute data matches a set of predefined criteria associated with the electronic folder. Accordingly, the combined teaching of Zarmer, Fujisawa and Malone cannot possible render any of claims 11-16 unpatentable under 35 U.S.C. §103(a), as alleged in the Office Action.

E. Claims 17-24 Are Improperly Rejected Under 35 U.S.C. §103(a) For Allegedly Being Unpatentable Over Zarmer And Fujisawa And Further In View Of Malone.

Claims 17-24 variously depend from claim 1. Accordingly, claims 17-24 are patentably distinguishable over the combined teaching of Zarmer and Fujisawa for the reasons set forth above with respect to claims 3-10. The Appellants respectfully contend, however, that claims 17-24 are also patentable over the combined teaching of Zarmer, Fujisawa and Malone. The basis for the Appellants' contention is as follows. Claims 17-24 further define a "data attribute", which is recited in claim 16, as an author name, a publication date, a word count, an annotation, a key word, an image type, an image dimension, or meta-text with positioning information. After analyzing Malone, and in particular, the various passages in Malone cited by the Office Action, the Appellants respectfully contend that Malone does not teach or suggest a data field containing a data attribute, where the data attribute may be an author name, a publication date, a word count, an annotation, an image type, an image dimension, or meta-text with positioning information. However, even if one were to conclude that Malone does teach or suggest a data field containing a data attribute that takes the form of any one of the aforementioned items, Malone still fails to rectify the deficiencies associated with the combined teaching of Zarmer and Fujisawa. More specifically, Malone, like the combined teaching of Zarmer and Fujisawa, fails to teach or suggest a method for managing a document collection in a computer system that comprises, *inter alia*, automatically extracting attribute data from an imported document, generating a data structure associated with the imported document, wherein the data structure contains the extracted attribute data, and linking the imported document to an electronic folder if the attribute data matches a set of predefined criteria associated with the electronic folder. Accordingly, the combined teaching of Zarmer, Fujisawa and Malone cannot possible render any of claims 17-24 unpatentable under 35 U.S.C. §103(a), as alleged in the Office Action.

F. Claims 25-28 Are Improperly Rejected Under 35 U.S.C. §103(a) For Allegedly Being Unpatentable Over Zarmer And Fujisawa And Further In View Of Malone.

Claims 25-28 variously depend from claim 1. More specifically, claims 25-28 involve the concept of monitoring document modifications and automatically linking documents to or deleting documents from an electronic folder if the modifications cause the attribute data associated with the electronic document to now match the predefined criteria associated with the electronic folder or no longer match the predefined criteria associated with the electronic folder, respectively. Claims 25-28 are patentably distinguishable over the combined teaching of Zarmer and Fujisawa for at least those reasons set forth above with respect to claims 3-10. Again, Malone fails to make up for the deficiencies of Zarmer and Fujisawa with respect to claim 1. Thus, the Appellants contend that claims 25-28 are also patentable over the combined teaching of Zarmer, Fujisawa and Malone.

It should be noted that the Office Action, notes that the combined teaching of Zarmer, Fujisawa and Malone fails to teach or suggest the present invention as defined by any of claims 25-28. The Office Action contends, however, that "it would have been obvious to a person of ordinary skill in the art of extracting indexing information at the time the invention was made to have a data structure because documents in a document collection have stored attributes relating to the document." The Appellants respectfully contend that it is immaterial as to whether it would have been obvious to one of ordinary skill in the art "to have a data structure." What is material, according to 35 U.S.C. §103(a), is whether it would have been obvious to one of skill in the art to extract indexing information from the attribute data in the data structure, in the context of claim 1 as a whole. Since the Office Action does not address whether this would have been obvious, the Appellants contend that this is but further evidence that the rejection of claims 25-28 under 35 U.S.C. §103(a) is improper.

G. Claims 30-31 Are Improperly Rejected Under 35 U.S.C. §103(a) For Allegedly Being Unpatentable Over Zarmer And Fujisawa And Further In View Of Malone.

Claims 30-31 variously depend from claim 1. More specifically, claims 30-31 involve identifying the imported document on an inclusion list or an exclusion list, respectively, based upon a determination as to whether the imported document is to be automatically linked or excluded from the electronic folder. Claims 30-31 are patentably distinguishable over the combined teaching of Zarmer and Fujisawa for at least those reasons set forth above with respect to claims 3-10. Since Malone fails to make up for the deficiencies of Zarmer and Fujisawa, as discussed above, the Appellants contend that claims 30-31 are patentable over the combined teaching of Zarmer, Fujisawa and Malone.

Again, it should be noted that the Office Action, notes that the combined teaching of Zarmer, Fujisawa and Malone fails to teach or suggest the present invention as defined by any of claims 30-31. The Office Action contends, however, that "it would have been obvious to a person of ordinary skill in the art of analyzing data attributes at the time the invention was made to have a stored data structure because for example, in Lotus Notes and Microsoft Windows '98 a user can generate the data from document storage and depending on the document contents the user can decide whether to link the folder to the next folder in the hierarchy." The Appellants respectfully contend that it is immaterial as to whether it would have been obvious to one of ordinary skill in the art "to have a stored data structure." What is material, according to 35 U.S.C. §103(a), is whether it would have been obvious to one of skill in the art to provide a method, as defined by claim 1, which further includes steps, such as, electronically analyzing the attribute data stored in the data structure; determining whether the document is to be automatically linked to or excluded from the electronic folder, based on the aforementioned analysis; and identifying the document on an inclusion list or exclusion list accordingly. Since the Office Action fails to address whether a method including all of these steps would have been obvious, the Appellants contend that this further evidences the fact that the rejection of claims 30-31 under 35 U.S.C. §103(a) is improper.

H. Claims 32-33 Are Improperly Rejected Under 35 U.S.C. §103(a) For Allegedly Being Unpatentable Over Zarmer And Fujisawa And Further In View Of Malone.

Claims 32-33 variously depend from claim 1. More specifically, claims 32-33 involve the concept of monitoring document modifications and automatically linking or deleting documents to or from an electronic folder if the modifications cause the attribute data associated with the electronic document to now match the predefined criteria associated with the electronic folder or no longer match the predefined criteria associated with the electronic folder, respectively. Claims 32-33 are patentably distinguishable over the combined teaching of Zarmer and Fujisawa for at least those reasons set forth above with respect to claims 3-10. As Malone fails to make up for the deficiencies of Zarmer and Fujisawa, as discussed above, the Appellants contend that claims 32-33 are patentable over the combined teaching of Zarmer, Fujisawa and Malone.

It is once again noted that the Office Action, notes that the combined teaching of Zarmer, Fujisawa and Malone fails to teach or suggest the present invention as defined by any of claims 32-33. The Office Action first contends, however, that "it would have been obvious to a person of ordinary skill in the art of document modifications at the time the invention was made to monitor the modifications and to combine Zarmer's attribute data and Fujisawa's electronic document importing with Malone's monitoring document modifications because the user can change the document data by making additions or deletions to the document contents." The Office Action then contends that "it would have been obvious to a person of ordinary skill in the art of document linking at the time the invention was made to match the predefined criteria because if a user modifies the contents of the document this will change users the [sic] created links to the folders in the hierarchy." The Appellants respectfully contend that it is immaterial as to whether it would have been obvious to one of ordinary skill in the art "to match predefined criteria." What is material is whether it would have been obvious to one of skill in the art to provide a method, as defined by claim 1, which further includes steps, such as, monitoring document modifications and automatically establishing a link or deleting the link between

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the document and the electronic folder if the document modifications cause the attribute

data to match, or no longer match, the set of predefined criteria corresponding to the first

electronic folder, respectively. Since the Office Action fails to address whether a method

including these steps would have been obvious, the Appellants contend this further

establishes the impropriety of the rejection of claims 30-31 under 35 U.S.C. §103(a).

I. Claims 34-38 Are Improperly Rejected Under 35 U.S.C. §103(a) For Allegedly Being Unpatentable Over Zarmer And Fujisawa And Further In View Of Malone.

Claims 34-38 each depend from claim 1. Accordingly, claims 34-38 are patentably

distinguishable over the combined teaching of Zarmer and Fujisawa for the reasons set

forth above with respect to claims 3-10. The Appellants respectfully contend, however,

that claims 34-38 are also patentable over the combined teaching of Zarmer, Fujisawa and

Malone. The basis for the Appellants' contention is as follows. Claims 34-38 further

define the "attribute data," which is recited in claim 1, as a document title, a document

author, a phrase that is associated with the document, a key word, or a common concept.

After analyzing Malone, and in particular, the various passages in Malone cited in the

Office Action, the Appellants respectfully contend that Malone does not teach or suggest a

method, as defined by claim 1, that extracts attribute data from an imported electronic

document, where the attribute data may be defined as a document title, a document author,

a phrase that is associated with the document, or a common concept. However, even if one

were to conclude that Malone does teach or suggest extracting attribute data from an

imported electronic document, where the attribute data may be defined as a document title,

a document author, a phrase that is associated with the document, or a common concept,

Malone still fails to rectify the deficiencies associated with the combined teaching of

Zarmer and Fujisawa. More specifically, Malone, as stated previously, fails to teach or

suggest a method for managing a document collection in a computer system that comprises,

inter alia, automatically extracting attribute data from an imported document, generating a

data structure associated with the imported document, wherein the data structure contains

the extracted attribute data, and linking the imported document to an electronic folder if the

attribute data matches a set of predefined criteria associated with the electronic folder. Accordingly, the combined teaching of Zarmer, Fujisawa and Malone cannot possibly render any of claims 34-38 unpatentable under 35 U.S.C. §103(a), as alleged in the Office Action.

J. Claims 39-46 Are Improperly Rejected Under 35 U.S.C. §103(a) For Allegedly Being Unpatentable Over Zarmer And Fujisawa And Further In View Of Malone.

Claims 39-46 variously depend from claim 1. More specifically, claims 39-46 deal with the concept of automatically manipulating the imported document based on a predefined behavior that is associate with the electronic folder to which the imported document has been linked. Claims 39-46 are patentably distinguishable over the combined teaching of Zarmer and Fujisawa for at least those reasons set forth above with respect to claims 3-10. Because Malone fails to make up for the deficiencies of Zarmer and Fujisawa, as discussed above, the Appellants contend that claims 39-46 are patentable over the combined teaching of Zarmer, Fujisawa and Malone.

Furthermore, the Office Action notes that the combined teaching of Zarmer, Fujisawa and Malone fails to teach or suggest the present invention as defined by any of claims 39-46. However, with regard to claims 39, the Office Action asserts that "it would have been obvious to a person of ordinary skill in the art of document manipulation at the time the invention was made to have a first electronic folder." The Appellants respectfully contend, however, that it is immaterial as to whether it would have been obvious to one of ordinary skill in the art "to have a first electronic folder." What is material is whether it would have been obvious to one of skill in the art to provide a method, as defined by claim 1, which further includes a step of automatically manipulating the document based on a predefined behavior associated with the electronic folder.

With regard to claims 40 and 44, the Office Action asserts that "[i]t would have been obvious to a person of ordinary skill in the art of user-predefined behavior at the time the invention was made to have user-defined behavior and to combine Zarmer's data structure and Fujisawa's data attributes with Malone's predefined behavior." The

Appellants respectfully contend, however, that it is immaterial as to whether it would have been obvious to one of ordinary skill in the art "to have user-defined behavior and to combine Zarmer's data structure and Fujisawa's data attributes with Malone's predefined behavior." What is material is whether it would have been obvious to one of skill in the art to provide a method, as defined by claim 39 or 43, which further defines predefined behavior as being user-defined behavior.

With regard to claims 41 and 45, the Office Action asserts that "[i]t would have been obvious to a person of ordinary skill in the art of predefined behavior at the time the invention was made to e-mail a document to a preprogrammed e-mail address and combine Zarmer's electronic document and Fujisawa's image format with Malone's preprogrammed e-mail address." The Appellants respectfully contend, however, that it is immaterial as to whether it would have been obvious to one of ordinary skill in the art "to e-mail a document to a preprogrammed e-mail address and combine Zarmer's electronic document and Fujisawa's image format with Malone's preprogrammed e-mail address." What is material is whether it would have been obvious to one of skill in the art to provide a method, as defined by claim 39 or 43, which further defines predefined behavior as involving e-mailing a document to a preprogrammed e-mail address.

Finally, with regard to claims 42 and 46, the Office Action states that "[i]t would have been obvious to a person of ordinary skill in the art of predefined behavior at the time the invention was made to have controlled access." The Appellants respectfully contend that it is immaterial as to whether it would have been obvious to one of ordinary skill in the art "to have controlled access." What is material is whether it would have been obvious to one of skill in the art to provide a method, as defined by claims 39 or 43, which further defines predefined behavior as providing controlled access to the document.

Since the Office Action fails to address whether the method of claim 1 further including the various steps associated with claims 39-46 would have been obvious to one of ordinary skill in the art, and since the combined teaching of Zarmer, Fujisawa and Malone fail to teach or suggest each and every feature associated with any of claims 39-46, the Appellants contend that the rejection of claims 39-46 under 35 U.S.C. §103(a) is improper.

IX.   Conclusion

Based on the arguments present herein above, it is respectfully requested that the Examiner's rejections of claims 1-28, 30-46, and 51 under 35 U.S.C. §103(a) be REVERSED.

Respectfully submitted,

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APPENDIX

The Appealed Claims

1.   A method for managing a document collection in a computer system, said method comprising the steps of:

importing a document having a first format into a collection of documents in the computer system, wherein the collection of documents is organized within the computer system in accordance with a hierarchy of electronic folders;

storing the document in a memory location;

automatically extracting attribute data from the document;

generating a data structure for the document, wherein said data structure contains the attribute data in a second format independent of said first format, and wherein said data structure is stored and maintained in memory separate from the imported document; and

linking the imported document to a first electronic folder if the attribute data contained in said data structure matches a set of predefined criteria corresponding to the first electronic folder.

2.   The method of claim 1, wherein said step of importing a document into the computer system comprises the steps of:

optically scanning a paper-based document; and

converting the optically scanned document into an electronic document.

3.   The method of claim 2, wherein the first format is an image format.

4.   The method of claim 2, wherein the first format is a text format.

5.   The method of claim 1, wherein said step of importing a document into the computer system comprises the step of:

importing an electronic document.

6.   The method of claim 5, wherein the first format is a text format.

7.   The method of claim 6, wherein the document is a word processing document.

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8. The method of claim 6, wherein the document is an e-mail message.

9. The method of claim 5, wherein the first format is an image format.

10. The method of claim 5, wherein the first format is an HTML format.

11. The method of claim 1, wherein the second format comprises at least one data field.

12. The method of claim 11, wherein the at least one data field contains a file name.

13. The method of claim 11, wherein the at least one data field contains the memory location.

14. The method of claim 11, wherein the data field contains a bit map.

15. The method of claim 11, wherein the data field contains raw text.

16. The method of claim 11, wherein the data field contains a data attribute.

17. The method of claim 16, wherein the data attribute is an author name.

18. The method of claim 16, wherein the data attribute is a publication date.

19. The method of claim 16, wherein the data attribute is a word count.

20. The method of claim 16, wherein the data attribute is an annotation.

21. The method of claim 16, wherein the data attribute is a key word.

22. The method of claim 16, wherein the data attribute is an image type.

23. The method of claim 16, wherein the data attribute is an image dimension.

24. The method of claim 16, wherein the data attribute is meta-text with positioning information.

25. The method of claim 1, further comprising the step of extracting indexing information from the attribute data in the data structure.

26. The method of claim 25 further comprising the steps of:

monitoring modifications to the document;

extracting updated indexing information; and

updating the attribute data contained in the data structure based on the updated indexing information.

27. The method of claim 25, wherein the attribute data is derived from a data field comprising raw text data.

28. The method of claim 25 further comprising the step of:

identifying the document from amongst other documents in the document collection utilizing the indexing information.

30. The method of claim 1 further comprising the steps of:

electronically analyzing the attribute data stored in the data structure corresponding to the document;

determining whether the document is to be automatically linked to the first electronic folder, based on the electronic analysis of the attribute data stored in the data structure; and

identifying the document on an inclusion list if it is determined that the document is not automatically linked to the first electronic folder.

31. The method of claim 1 further comprising the steps of:

electronically analyzing the attribute data stored in the data structure corresponding to the document;

determining whether the document is to be automatically excluded from being linked to the first electronic folder; and

identifying the document on an exclusion list if it is determined that the document is not to be automatically excluded from being linked to the first electronic folder.

32.   The method of claim 1 further comprising the steps of:

monitoring document modifications; and

automatically linking the document to a second electronic folder if a document modification causes the attribute data to match a set of predefined criteria corresponding to the second electronic folder.

33.   The method of claim 1 further comprising the steps of:

monitoring document modifications; and

automatically deleting the link between the document and the first electronic folder if a document modification causes the attribute information to no longer match the set of predefined criteria corresponding to the first electronic folder.

34.   The method of claim 1, wherein the attribute data is a document title.

35.   The method of claim 1, wherein the attribute data is a document author.

36.   The method of claim 1, wherein the attribute data is a phrase associated with the document.

37.   The method of claim 1, wherein the attribute data is a key word.

38.   The method of claim 1, wherein the attribute data is a common concept.

39.   The method of claim 1 further comprising the step of:

automatically manipulating the document based on a predefined behavior associated with the first electronic folder.

40.   The method of claim 39, wherein the predefined behavior is a user-defined behavior.

41.   The method of claim 39, wherein the predefined behavior involves e-mailing the document to a preprogrammed e-mail address.

42.   The method of claim 39, wherein the predefined behavior involves providing controlled access to the document.

43.   The method of claim 1 further comprising the steps of:

linking the document to a folder, wherein the folder has associated with it a predefined behavior; and

automatically manipulating the document in accordance with the predefined behavior.

44.   The method of claim 43, wherein the predefined behavior is a user-defined behavior.

45.   The method of claim 43, wherein the predefined behavior involves e-mailing the document to a preprogrammed e-mail address.

46.   The method of claim 43, wherein the predefined behavior involves providing controlled access to the document.

47.   The method of claim 1 further comprising the step of:

maintaining a second data structure that includes data defining a document hierarchy for the document collection.

48.   The method of claim 47 further comprising the step of:

updating the second data structure to include data that defines a link between the data structure of the imported document and a document hierarchy folder or category.

49. The method of claim 47, wherein the second data structure includes data linking all documents in the document collection to at least one folder or category.

50. The method of claim 47 further comprising the step of:

maintaining a third data structure that includes data defining a second document hierarchy for the document collection, or a portion thereof, wherein the third data structure is maintained at a local terminal connected to the computer system.

51. A computer-readable storage medium having stored therein a program which executes the steps of:

importing a document into a collection of documents in a computer-based system, wherein the collection of documents is organized within the computer-based system in accordance with a hierarchy of electronic folders;

storing the document in memory;

automatically extracting attribute data from the document;

generating a data structure corresponding to the document comprising the extracted attribute data in a standardized format regardless of document type or document format, and wherein the data structure is stored and maintained in memory separate from the document;

predefining category criteria for a first electronic folder, wherein the first electronic folder is one of the electronic folders which make up the hierarchy of electronic folders; and

linking the document to the first electronic folder if the attribute data extracted from the document and stored in the data structure matches the category criteria.

53. The computer-readable storage medium in accordance with claim 51, wherein said program further comprises the executable steps of:

electronically analyzing the attribute data stored in the data structure corresponding to the document;

comparing the attribute data to the predefined category criteria for the first electronic folder;

determining whether the document is to be automatically linked to the first electronic folder based on the comparison; and

identifying the document on an inclusion list if it is determined that the document is not to be automatically linked to the first electronic folder.

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54.   The computer-readable storage medium in accordance with claim 51, wherein said program further comprises the executable steps of:

electronically analyzing the attribute data stored in the data structure corresponding to the document;

comparing the attribute data to the predefined category criteria for the first electronic folder;

determining whether the document is to be automatically excluded from being linked to the first electronic folder; and

identifying the document on an exclusion list if it is determined that the document is not to be automatically excluded from being linked to the first electronic folder.

55.   The computer-readable storage medium in accordance with claim 51, wherein said executable step of predefining category criteria for the first electronic folder comprises the steps of:

storing a seed document in the first electronic folder;

analyzing the seed document; and

extracting the category criteria from the seed document.

56.   The computer-readable storage medium in accordance with claim 51, wherein the predefined category criteria is based on user-defined criteria.

57.   The computer-readable storage medium in accordance with claim 51, wherein said program further comprises the executable steps of:

monitoring document modifications; and

automatically linking the document to a second electronic folder if the attribute data now matches predefined category criteria associated with the second electronic folder.

58.   The computer-readable storage medium in accordance with claim 51, wherein said program further comprises the executable steps of:

monitoring document modification; and

automatically deleting the link between the document and the first electronic folder if the attribute data no longer matches the predefined criteria associated with the first electronic folder.

59.   The computer-readable storage medium in accordance with claim 51, wherein the attribute data is a document title.

60.   The computer-readable storage medium in accordance with claim 51, wherein the attribute data is a document author.

61.   The computer-readable storage medium in accordance with claim 51, wherein the attribute data is a phrase associated with the document.

62.   The computer-readable storage medium in accordance with claim 51, wherein the attribute data is a common concept.

63.   The computer-readable storage medium in accordance with claim 51, wherein the attribute data is a key word.

64.   The computer-readable storage medium in accordance with claim 51, wherein said program further comprises the executable steps of:

linking the document with an electronic folder; and

manipulating the document automatically based on a predefined behavior associated with the electronic folder.

65.   The computer-readable storage medium in accordance with claim 64, wherein the predefined behavior is a user-defined behavior.

66.   The computer-readable storage medium in accordance with claim 64, wherein the predefined behavior involves e-mailing the document to a preprogrammed e-mail address.

67.   The computer-readable storage medium in accordance with claim 64, wherein the predefined behavior involves providing controlled access to the document.

68.   The computer-readable storage medium in accordance with claim 51, wherein said step of importing a document into the computer-based system comprises the executable steps of:

generating program instructions thus causing an optical scanner, connected to

the computer system, to optically scan the document, wherein the document is a paper-based document; and

converting the optically scanned document into an electronic document.

69. The computer-readable storage medium in accordance with claim 68, wherein the electronic document is an image file.

70. The computer-readable storage medium in accordance with claim 68, wherein the electronic document is a text file.

71. The computer-readable storage medium in accordance with claim 51, wherein said step of importing a document into the computer system comprises the executable step of:

importing an electronic document.

72. The computer-readable storage medium in accordance with claim 71, wherein the electronic document is a word processing document.

73. The computer-readable storage medium in accordance method of claim 71, wherein the electronic document is a document containing an image.

74. The computer-readable storage medium in accordance method of claim 71, wherein the electronic document is an e-mail message.

75. The computer-readable storage medium in accordance method of claim 71, wherein the electronic document is an HTML document.

76. The computer-readable storage medium in accordance with claim 51, wherein said program further comprises the executable step of:

extracting indexing information from the attribute data in the data structure.

77. The computer-readable storage medium in accordance with claim 76, wherein said program further comprises the executable steps of:

monitoring modifications to the document; and

extracting updated indexing information.

78. The computer-readable storage medium in accordance with claim 76, wherein the attribute data is derived from a data field in the data structure comprising raw text data.

79. The computer-readable storage medium in accordance with claim 76, wherein said program further comprises the executable step of:

identifying the document from amongst other documents stored in the computer system utilizing the indexing information.

80. The computer-readable storage medium in accordance with claim 51, wherein said program further comprises the executable step of:

maintaining a second data structure that includes data defining a document hierarchy for the document collection.

81. The computer-readable storage medium in accordance with claim 80, wherein said program further comprises the executable step of:
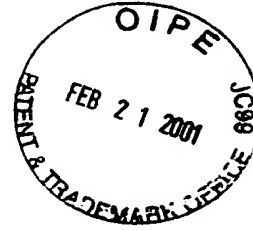
updating the second data structure to include data that defines a link between the data structure of the imported document and a document hierarchy folder or category.

82. The computer-readable storage medium in accordance with claim 80, wherein the second data structure includes data linking all documents in the document collection to at least one folder or category.

83. The computer-readable storage medium in accordance with claim 80, wherein said program further comprises the executable step of:

maintaining a third data structure that includes data defining a second document hierarchy for the document collection, or a portion thereof, wherein the third data structure is maintained at a local terminal connected to the computer system.

TABLE OF CONTENTS

I.   Real Party in Interest

The named inventors of the subject application are David R. FERGUSON, Dani SULEMAN, and Gregory L. WHITTEMORE. The inventors have assigned their rights to the invention disclosed in the application and any patent that may issue therefrom to Scorpion Acquisitions Corporation.

II.   Related Appeals and Interferences

No known appeals or interferences are believed to directly affect, or be affected by, or have any bearing on the Board's decision in this appeal.

III. Status of Claims

Claims 1-14, 18-33 and 37-40 are pending in the application. Claims 15-17 and 34-36 have been canceled. In the second final Office Action dated September 25, 2001, claims 1-5, 8-13, 18-22, 25-32 and 37-40 were finally rejected, while claims 6, 7, 14, 23, 24 and 33 were objected to for being dependent upon a rejected base claim.

IV.   Status of Amendments

There were no amendments or responses filed subsequent to the final rejection dated September 25, 2001.

V.   Summary of the Invention

The present invention involves a computer-based document management system that provides, among other things, an archiving utility which automatically archives electronic documents, for example, onto removable storage media.

In today's business environment, most businesses, from small businesses to large corporate entities, organize and maintain a tremendous amount of information, particularly information in the form of paper-based documents and electronic documents. The task of organizing and maintaining such a large number of documents, as well as document types, can, and typically is, a time consuming and costly matter.

In response, the computer industry, particularly the computer software industry, offers a

number of computer application programs designed to help mitigate this problem. Some of these computer application programs work in conjunction with optical scanners to automatically import paper-based documents into the host computer. Other application programs are directed more specifically at providing electronic file management services for existing electronic documents. Some of the more advanced computer application programs attempt to integrate a number of different capabilities into a single application program. Among the capabilities that some of the more advanced programs provide are automated document importing, storage, manipulation, retrieval, indexing, archiving, exporting and document annotation. Included among these more advanced application programs are PageKeeper by Caere Inc., PaperPort by Visioneer, and PAGIS by Xerox.

Despite the many features already offered by various software products currently on the market, there is still a tremendous need to provide a more efficient product. This is especially true regarding the way in which existing computer application programs store and/or archive electronic documents. For example, a user may wish to periodically review a document collection for the purpose of identifying documents that have been previously archived. Documents that a user may wish to archive might include documents that the user has not accessed for a long period of time, documents that the user does not anticipate accessing in the near future or on a regular basis, or documents that pertain to a particular business matter or client. If the document collection is extremely large, the task of reviewing, identifying, indexing and archiving each document would be extremely difficult and time consuming even with the computer programs currently available.

Similarly, a user may, on occasion, wish to retrieve one or more electronic documents that have been previously archived onto various removable storage media. Again, if the number of documents and/or the number of removable storage media used to store archived documents is large, the task becomes quite difficult even with the computer programs currently available. Therefore, a computer-based electronic document management program that has the ability to efficiently automate the process of identifying, indexing, archiving and retrieving documents to and from various archived storage media would be extremely desirable.

Accordingly, the present invention provides a more efficient method of indexing and archiving a large quantity of electronic documents. The automatic archiving function is triggered

by any one or more user-defined archiving conditions, such as a maximum time period, after which a document is automatically archived if it has not been accessed or modified. Figures 18 and 19 of the present application illustrate an exemplary user interface for defining archiving conditions. In addition, the archiving utility maintains a separate archiving index, which comprises an archiving index entry for each archived document. Each archiving index entry contains a number of data fields, including, for example, a thumbnail representation of the corresponding archived document. Each archive index entry, therefore, serves as a link to a corresponding archived document despite the fact that the archived document has been taken "off-line." If, however, a user wishes to search through the archived documents, a search engine may be used to search the contents of the various data fields associated with the archive index entries. If the search identifies one or more archived documents of interest, the archiving utility will prompt the user to make the appropriate removable storage media available, based on information stored in the corresponding archive index entries identified during the search, if the user wants to access the one or more archived documents.

VI.   The Issues

There is one issue presented for this appeal. The issue is whether claims 1-5, 8-13, 18-22, 25-32 and 37-40 are properly rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over U.S. Patent No. 5,347,579 to Blanford ("Blanford").

VII.   Grouping of Claims

For the purpose of this appeal, claims 1, 8, 9, 18 and 25-27 stand or fall together; claims 2 and 19 stand or fall together; claims 4, 5, 21 and 22 stand or fall together; claims 3 and 20 stand or fall together; claims 10-13, 28, 29 and 30-32 stand or fall together; claims 37 and 38 stand or fall together; and claims 39 and 40 stand or fall together.

VIII.   Arguments

Upon proper allocation of the law and an understanding of the technical principles involved in the present invention, Appellants submit that it will be readily apparent that a reversal of the prior art rejections is proper.

A.   Claims 1, 8, 9, 18 and 25-27 Are Not Properly Rejected Under 35 U.S.C. § 103(a) As Being Unpatentable Over Blanford.

MPEP §2143 sets forth the basic requirements for establishing a *prima facie* case of obviousness, as indicated herein below:

> "To establish a *prima facie* case of obviousness three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally known in the art to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all of the claimed limitations."

In the present case, independent claim 1 is patentable over Blanford for at least the reason that Blandford fails to disclose or suggest ANY of the claimed steps. More specifically, Blandford fails to disclose or suggest the steps of defining an archiving condition for use in determining whether an electronic document is to be archived; electronically analyzing a document attribute of an electronic document to determine if the document attribute satisfies the archiving condition; and triggering said automatic archiving process in order to electronically archive the electronic document if the document attribute satisfies the archiving condition. Independent claim 18 recites a computer-readable storage medium having stored therein a document management program which executes steps which are substantially similar to the steps recited in claim 1. Furthermore, claims 8, 9 and 25-27 variously depend from independent claims 1 and 18. Therefore, claims 8, 9, 18 and 25-27 are patentably distinguishable over Blandford for at least those reasons presented with respect to claim 1.

1.   Blandford Fails to Disclose Or Suggest The Step of Defining An Archiving Condition For Use In Determining Whether An Electronic Document Is to Be Archived

Blandford discloses a personal computer diary, wherein data blocks (i.e., diary entries) are archived such that modification to the data block can be identified and removed or restored to recreate the corresponding original data block. The computer diary of Blandford includes, among other features, an archive function 104 (see figure 1 of Blandford). The archive function, when selected by the user, stores a write-once read-many record containing the original data, a stripped version of the original data, or a hash signature of the original data together with the present date. However, as noted by the Office Action, Blandford fails to disclose the step of

defining an archiving condition for use in determining whether an electronic document is to be archived.

Nevertheless, the Office Action asserts that it would be obvious to modify the teachings of Blandford to include the step of defining an archiving condition for use in determining whether an electronic document is to be archived "because such a modification would allow Blandford to determine if the date (attribute) was written any time close to a specific date or changed months or years later, to analyze the document date to make a determination whether the date was the oldest document date according to a timestamp, and to have a skilled programmer compose formulas for relative reference dates for archiving the document." This assertion is unfounded for the following reasons.

First, there is no suggestion in Blandford for such a modification. To the contrary, Blandford clearly recites that a data block can only be archived once (see column 14, lines 26-47). Therefore there would be no need to modify Blandford in order to have "skilled programmers compose formulae for relative reference dates for archiving the document" as suggested by the Office Action. Furthermore, Blandford already discloses the ability to determine the date which a data block is created in order to prevent archiving of a data block which has allegedly been created prior to a previously stored data block. This feature in Blandford prevents modifications or the addition of diary entries after the fact (see column 14, lines 26-47 of Blandford).

Second, as Blandford fails to recite any of the steps recited in claim 1, it is quite clear that the Examiner's conclusion that claim 1 is obvious in view of Blandford is based on hindsight reconstruction of the individual elements of the claims, without any legal basis with which to support such a conclusion. Accordingly, the rejection of claim 1 under 35 U.S.C. §103(a) in view of Blandford is improper.

2. <u>Blandford Fails To Disclose Or Suggest The Step Of Electronically Analyzing A Document Attribute Of An Electronic Document To Determine If The Document Attribute Satisfies The Archiving Condition</u>

As discussed above, Blandford discloses a personal computer diary, wherein diary entries are archived such that modification to the entries can be identified and removed or restored to recreate the corresponding original entries. However, as noted by the Office Action, Blandford

fails to disclose the step of electronically analyzing a document attribute of an electronic document to determine if the document attribute satisfies the archiving condition.

Nevertheless, the Office Action again asserts that it would be obvious to modify the teachings of Blandford to include the step of electronically analyzing a document attribute of an electronic document to determine if the document attribute satisfies the archiving condition "because such a modification would allow Blandford to determine if the date (attribute) was written any time close to a specific date or changed months or years later, to analyze the document date to make a determination whether the date was the oldest document date according to a timestamp, and to have a skilled programmer compose formulas for relative reference dates for archiving the document."

Again, this assertion is unfounded for at least the those reasons presented above, specifically that there is no suggestion in Blandford for such a modification and it is quite clear that the Examiner's conclusion that claim 1 is obvious in view of Blandford is based on hindsight reconstruction of the individual elements of the claims, without any legal basis with which to support such a conclusion.

3.   Blandford Fails To Disclose Or Suggest The Step Of Triggering Said Automatic Archiving Process In Order To Electronically Archive The Electronic Document If The Document Attribute Satisfies The Archiving Condition

As discussed above, Blandford discloses a personal computer diary, wherein diary entries are archived such that modification to the entries can be identified and removed or restored to recreate the corresponding original entries. However, as noted by the Office Action, Blandford fails to disclose the step of triggering said automatic archiving process in order to electronically archive the electronic document if the document attribute satisfies the archiving condition.

Nevertheless, the Office Action again asserts that it would be obvious to modify the teachings of Blandford to include the step of triggering said automatic archiving process in order to electronically archive the electronic document if the document attribute satisfies the archiving condition "because such a modification would allow Blandford to determine if the date (attribute) was written any time close to a specific date or changed months or years later, to analyze the document date to make a determination whether the date was the oldest document date according to a timestamp, and to have a skilled programmer compose formulas for relative reference dates

for archiving the document."

Again, this assertion is unfounded for at least the those reasons presented above, specifically that there is no suggestion in Blandford for such a modification and it is quite clear that the Examiner's conclusion that claim 1 is obvious in view of Blandford is based on hindsight reconstruction of the individual elements of the claims, without any legal basis with which to support such a conclusion.

4.   Claims 8, 9, 18 and 25-27 Are Not Anticipated By Cullen.

Claim 18 recites a computer-readable storage medium having stored therein a document management program which includes features that are substantially similar to the capabilities provided by the steps of claim 1. As explained above, Blandford fails to disclose all the features as recited in claim 1. Accordingly, claim 18 is patentably distinguishable over Blandford for at least those reasons stated above with respect to claim 1.

Claims 8, 9 and 25-27 variously depend from independent claims 1 and 18. Therefore, claims 8, 9 and 25-27 are patentably distinguishable over Blandford for at least those reasons presented above with respect to claims 1 and 18.

B.   Claims 2 and 19 Are Not Properly Rejected Under 35 U.S.C. § 103(a) As Being Unpatentable Over Blandford.

Claims 2 and 19, which depend from claims 1 and 18 respectively, further recite that the archiving condition is user defined. Therefore, claims 2 and 19 are patentably distinguishable over Blandford not only because Blandford fails to disclose or suggest any of the steps recited in claims 1 and 18, but also because Blandford fails to disclose or suggest that the archiving condition is user defined.

The Office Action asserts that Blandford discloses that the archiving condition is user defined inasmuch as Blandford discloses that the user may elect to archive or save a diary entry if it was not previously archived or saved. To support this assertion, the Office Action points to column 5, lines 33-35 of Blandford. This assertion is unfounded for the following reason.

The cited passages (i.e., column 5, lines 33-35 of Blandford) discloses that after a user with master access elects to exit the electronic diary, options to archive or save a diary entry are provided. However, nowhere in the cited passage or elsewhere in Blandford is there any

disclosure of the user defining an archiving condition for use in determining whether an electronic document is to be archived. At best, Blandford can only be interpreted as disclosing that a user may initiate the archive process if not previously done. User initiation of an archiving process is not equivalent to the user defining a condition for use in determining whether or not a document is to be archived.

Since Blandford fails to disclose or suggest that the archiving precondition is user defined as recited in Appellants' claims 2 and 19, claims 2 and 19 are patentably distinguishable over Blandford.

C.   Claims 4, 5, 21 and 22 Are Not Properly Rejected Under 35 U.S.C. § 103(a) As Being Unpatentable Over Blandford.

Claims 4, 5, 21 and 22, which variously depend from claims 1 and 18, further recite that the method includes the step of storing an archive index entry for the electronic document in an archive index, wherein the archive index entry comprises data necessary for displaying a thumbnail of the electronic document. Therefore, claims 4, 5, 21 and 22 are patentably distinguishable over Blandford not only because Blandford fails to disclose or suggest any of the steps recited in claims 1 and 18, but also because Blandford fails to disclose or suggest that the method includes the step of storing an archive index entry for the electronic document in an archive index, wherein the archive index entry comprises data necessary for displaying a thumbnail of the electronic document.

While the Office Action notes that Blandford fails to disclose storing an archive index entry, wherein the entry comprises the data necessary to display a thumbnail of the document, the Office Action asserts that it would have been obvious to modify Blandford to includes said features because "such a modification would allow files to be automatically archived onto removable mediums for storage when the files have not been accessed or modified for a long time" and because "the modification would allow Blandford's system to have an archive index entry of a thumbnail which is well known in the art as being a small image of the document displayed in order for the user to be able to identify the document." These assertions are unfounded for the following reasons.

Nowhere in Blandford is there any suggestion of creating an archive index entry nor is

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there any suggest that unmodified or unaccessed diary entries should be stored on a removable medium. Furthermore, absent knowledge gained from Appellants' specification is there is no suggestion that the creation of an archive index would allow files to be automatically achieved into removable mediums for storage.

Accordingly, again it is quite clear that the Examiner's conclusion that claims 4, 5, 21 and 22 are obvious in view of Blandford is based on hindsight reconstruction of the individual elements of the claims, without any legal basis with which to support such a conclusion. Therefore, claims 4, 5, 21 and 22 are patentably distinguishable over Blandford.

D.   Claims 3 and 20 Are Not Properly Rejected Under 35 U.S.C. § 103(a) As Being Unpatentable Over Blandford.

Claims 3 and 20, which depend from claims 1 and 18 respectively, further recite that the document attribute is selected from a group of document attributes comprising document size, document type, file age, date document was last opened and subject matter of document. Therefore, claims 3 and 20 are patentably distinguishable over Blandford not only because Blandford fails to disclose or suggest any of the steps recited in claims 1 and 18, but also because Blandford fails to disclose or suggest that the document attribute is selected from a group of document attributes comprising document size, document type, file age, date document was last opened and subject matter of document.

The Office Action asserts that Blandford discloses that the document attribute is selected from a group of document attributes inasmuch as Blandford discloses that specific document attributes exist. This assertion is unfounded for the follow reason.

While Blandford may disclose the use of document attributes such as date, name, key text words, and the like as parameters for a search and retrieve function, such a disclosure is not equivalent to disclosing that the document attribute is used for determination of whether or not a document is to be archived. Therefore, claims 3 and 20 are patentably distinguishable over Blandford.

E.   Claims 10-13, 28, 29 and 30-32 Are Not Properly Rejected Under 35 U.S.C. § 103(a) As Being Unpatentable Over Blandford.

Claims 10 and 28, which variously depend from claims 1 and 18, further recite that the

step of electronically archiving the electronic document comprises the steps of displaying a user prompt indicating that the document attribute matches the archiving condition; displaying a user prompt requesting that the user define a storage medium onto which the electronic document will be archived; generating an archive index entry in an archive index; and removing the electronic document from a present memory location to the user-defined storage medium. Therefore, claims 10 and 28 are patentably distinguishable over Blandford not only because Blandford fails to disclose or suggest any of the steps recited in claim 1, but also because Blandford fails to disclose or suggest that the step of electronically archiving the electronic document comprises *any* of the steps recited in claims 10 and 28.

The Office Action asserts that all of the steps of claim 10 are disclosed in Blandford inasmuch as Blandford discloses a search and retrieve procedure. To support this assertion the Office Action points to various passages in Blandford which are not germane to the claimed steps. For example, the Office Action asserts that the step of displaying a user prompt indicating that the document attribute matches the archiving condition is disclose in column 15, lines 34-40. However, Appellants' were unable to find any discussion of displaying a user prompt anywhere in the cited passage. The cited passage reads, "...where the user enters one or more search parameters such as date, date range,...and the like...When a match is found the corresponding working data block or blocks are input in step 576." At best the passage discloses that there is a user interface. However, this is not equivalent to displaying a user prompt that the document attribute matches the archiving condition. Similar arguments can be made with regard to the remaining steps which the Office Action alleges are disclosed by Blandford.

Claims 11-13, 29 and 30-32 variously depend from claims 10 and 28. Therefore, claims 11-13, 29 and 30-32 are patentably distinguishable over Blandford for at least those reasons presented above with respect to claims 10 and 28.

F. Claims 37 and 38 Are Not Properly Rejected Under 35 U.S.C. § 103(a) As Being Unpatentable Over Blandford.

Independent claim 37 is patentably distinguishable over Blandford for at least the reason that Blandford fails to disclose or suggest a method for archiving an electronic document which includes the steps of defining an archiving condition for use in determining whether an electronic

document is to be archived; identifying an attribute associated with the electronic document; determining whether the attribute satisfies the archiving condition; and triggering the automatic archiving process in order to electronically archive the electronic document if it is determined that the attribute satisfies the archiving condition.

The Office Action asserts that claim 37 is allegedly unpatentable over the Blandford for the same reason presented with respect to claim 1. Accordingly, Appellants assert that claim 37 is patentably distinguishable over Blandford for at least those reasons presented above with respect to claim 1. Furthermore, claim 38 depends from independent claim 37. Therefore, claim 38 is patentably distinguishable over Blandford for at least those reasons presented above with respect to claim 1.

G. Claims 39 and 40 Are Not Properly Rejected Under 35 U.S.C. § 103(a) As Being Unpatentable Over Blandford.

Independent claim 39 recites a method for retrieving an archived electronic document which includes, *inter alia*, the steps of maintaining an archive index, wherein the archive index includes an entry for each archived electronic document, and wherein each entry defines the storage medium on which the document is archived; selecting the archive index entry associated with the electronic document to be retrieved; prompting a user to make available to the computer-based electronic document management system, the storage medium upon which the electronic document is stored, based on the information contained in the selected archive index; and importing the electronic document from the storage medium. Independent claim 39 is patentably distinguishable over Blandford for at least the reason that Blandford fails to disclose or suggest any of the claimed steps.

The Office Action asserts that while Blandford fails to disclose the step of prompting the user to make available the storage medium upon which the electronic document is stored based on the information contained in the selected archive index, it would have been obvious to modify Blandford because such a modification "would allow Blandford's system to have the step of prompting a user to make a storage medium available and perform the first two steps prior to the user prompt as a method for document management and archiving." This assertion is unfounded for the following reason.

The Office Action asserts that the deficiencies of Blandford are obvious because Blandford could be modified to achieve the invention. However, the Office Action fails to provide any motivation for such a modification. Clearly, such as conclusion is based only on impermissible hindsight reconstruction. Nowhere in Blandford is there any disclosure or suggestion of creating an archiving index or archiving the diary entries on a removable storage medium, nevertheless prompting a user to provide the storage medium. Accordingly, absent proper motivation to modify the system of Blandford, the rejection of claim 39 is improper.

Claim 40 depends from independent claim 39. Therefore, claim 40 is patentably distinguishable over Blandford for at least those reasons presented above with respect to claim 39.

IX.   Conclusion

Based on the arguments present herein above, it is respectfully requested that the rejection of claims 1-5, 8-13, 18-22, 25-32 and 37-40 under 35 U.S.C. §103(a) as being unpatentable over Blanford be REVERSED.

Respectfully submitted,

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APPENDIX

The Appealed Claims

1.   In a computer-based document management system, a method for archiving an electronic document comprising the steps of:

defining an archiving condition for use in determining whether an electronic document is to be archived;

electronically analyzing a document attribute of an electronic document to determine if the document attribute satisfies the archiving condition; and

triggering said automatic archiving process in order to electronically archive the electronic document if the document attribute satisfies the archiving condition.

2.   The method of claim 1, wherein the archiving condition is user-defined.

3.   The method of claim 1, wherein the document attribute is selected from a group of document attributes comprising document size, document type, file age, date document was last opened and subject matter of document.

4.   The method of claim 1 further comprising the step of:

storing an archive index entry for the electronic document in an archive index.

5.   The method of claim 4, wherein the archive index entry comprises data necessary for displaying a thumbnail of the electronic document.

6.   The method of claim 4, wherein the archive index entry is an STG file.

7.   The method of claim 4, wherein the archive index entry comprises data necessary for identifying an archive memory location.

8.   The method of claim 1, wherein said step of electronically archiving the electronic

document comprises the steps of:

removing the electronic document from a first memory location; and

storing the electronic document in an archive memory location.

9.   The method of claim 8, wherein the archive memory location is a removable storage medium, with respect to said computer-based system.

10.   The method of claim 1, wherein said step of electronically archiving the electronic document comprises the steps of:

displaying a user prompt indicating that the document attribute matches the archiving condition;

displaying a user prompt requesting that the user define a storage medium onto which the electronic document will be archived;

generating an archive index entry for the electronic document;

storing the archive index entry in an archive index; and

removing the electronic document from a present memory location to the user-defined storage medium.

11.   The method of claim 10, wherein the user-defined storage medium is a removable storage medium.

12.   The method of claim 10, wherein the archive index entry comprises data necessary for displaying a thumbnail of the electronic document.

13.   The method of claim 10, wherein the archive index entry comprises data necessary for identifying the user-defined storage medium.

14.   The method of claim 10, wherein the archive index entry is an STG file.

18.   A computer-readable storage medium having stored therein a document

management program which executes the steps of:

defining an archiving condition;

electronically analyzing a plurality of electronic documents; and

electronically archiving an electronic document from amongst the plurality of electronic documents if the electronic document contains a document attribute or attributes that match the archiving condition.

19.   The computer-readable storage medium in accordance with claim 18, wherein the archiving condition is defined by a user.

20.   The computer-readable storage medium in accordance with claim 18, wherein the document attribute or attributes are selected from a group of document attributes comprising document size, document type, document age, date document was last opened and subject matter of document.

21.   The computer-readable storage medium in accordance with 18, wherein said program further comprises the executable step of:

storing an archive index entry for the electronic document in an archive index.

22.   The computer-readable storage medium in accordance with claim 21, wherein the archive index entry comprises data necessary for displaying a thumbnail of the archived electronic document.

23.   The computer-readable storage medium in accordance with claim 21, wherein the archive index entry comprises data necessary to identify the archive memory location.

24.   The computer-readable storage medium in accordance with claim 21, wherein the archive index entry is an STG file.

25.   The computer-readable storage medium in accordance with 18, wherein said

executable step of electronically archiving the electronic document comprises the executable step of:

copying the electronic document from a first memory location to an archive memory location.

26.   The computer-readable storage medium in accordance with claim 25, wherein said program further comprises the executable step of:

deleting the electronic document from the first memory location.

27.   The computer-readable storage medium in accordance with claim 25, wherein the archive memory location is a removable storage medium.

28.   The computer-readable storage medium in accordance with claim 18, wherein said executable step of electronically archiving the electronic document comprises the executable steps of:

displaying an indication that the document attribute or attributes match the archiving condition;

displaying a user prompt requesting that the user define a storage medium onto which the electronic document will be archived;

generating an archive index entry;

storing the archive index entry in an archive index; and

copying the electronic document from a present memory location to the user-defined storage medium.

29.   The computer-readable storage medium in accordance with claim 28, wherein said program further comprises the executable step of:

deleting the electronic document from the present memory location.

30.   The computer-readable storage medium in accordance with claim 28, wherein the user-defined storage medium is a removable storage medium.

31.   The computer-readable storage medium in accordance with claim 28, wherein the archive index entry comprises data necessary for displaying a thumbnail of the archived electronic document.

32.   The computer-readable storage medium in accordance with claim 28, wherein the archive index entry comprises data necessary to identify the user-defined storage medium.

33.   The computer-readable storage medium in accordance with claim 28, wherein the archive index entry is an STG file.

37.   In a computer-based document management system, a method for archiving an electronic document comprising the steps of:

defining an archiving condition for use in determining whether an electronic document is to be archived;

identifying an attribute associated with the electronic document;

determining whether the attribute satisfies the archiving condition; and

triggering the automatic archiving process in order to electronically archive the electronic document if it is determined that the attribute satisfies the archiving condition.

38.   The method of claim 37 further comprising the step of:

preserving a link between said computer-based document management system and the archived electronic document by maintaining a thumbnail representation of the electronic document.

39.   In a computer-based electronic document management system, a method for retrieving an archived electronic document comprising the steps of:

maintaining an archive index, wherein the archive index includes an entry for each archived electronic document, and wherein each entry defines the storage medium on which the electronic document is archived;

selecting the archive index entry associated with the electronic document to be retrieved;

prompting a user to make available to the computer-based electronic document management system, the storage medium upon which the electronic document is stored, based on the information contained in the selected archive index entry; and

importing the electronic document from the storage medium.

40.   The method of claim 39 further comprising the steps of:

identifying the electronic document to be retrieved by searching a plurality of thumbnail representations, where the computer-based electronic document management system maintains a thumbnail representation for each archived electronic document.

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